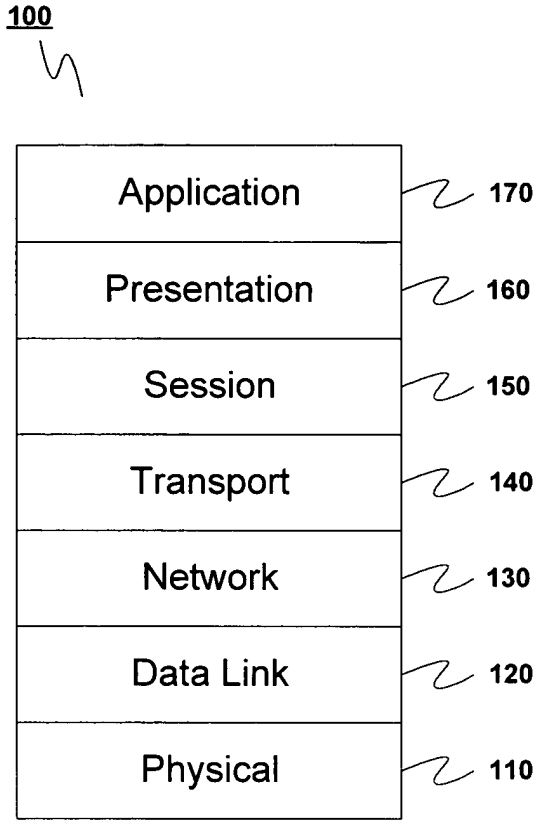
100
Application
170
Presentation
160
Session
150
Transport
140
Network
130
Data Link
120
Physical
110

Fig. 1

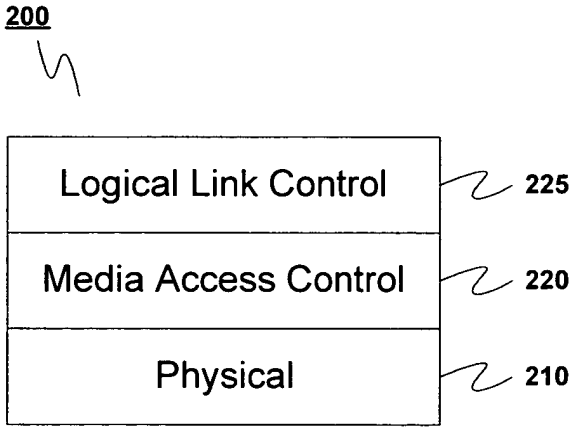
200
Logical Link Control
225
Media Access Control
220
Physical
210

Fig. 2

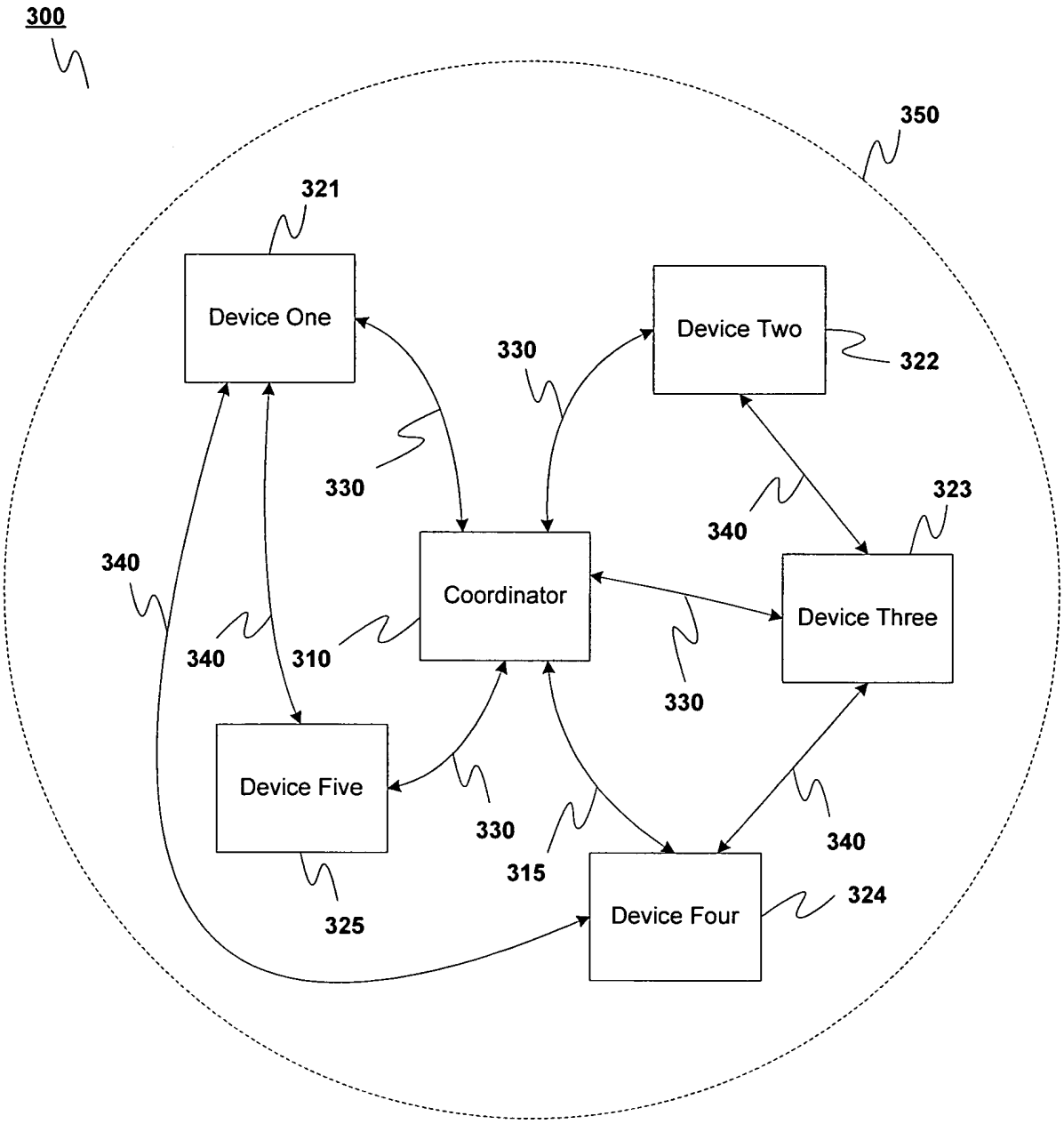
300
350
321
Device One
Device Two
322
330
330
340
323
340
Coordinator
Device Three
340
310
330
Device Five
330
315
340
325
Device Four
324

Fig. 3

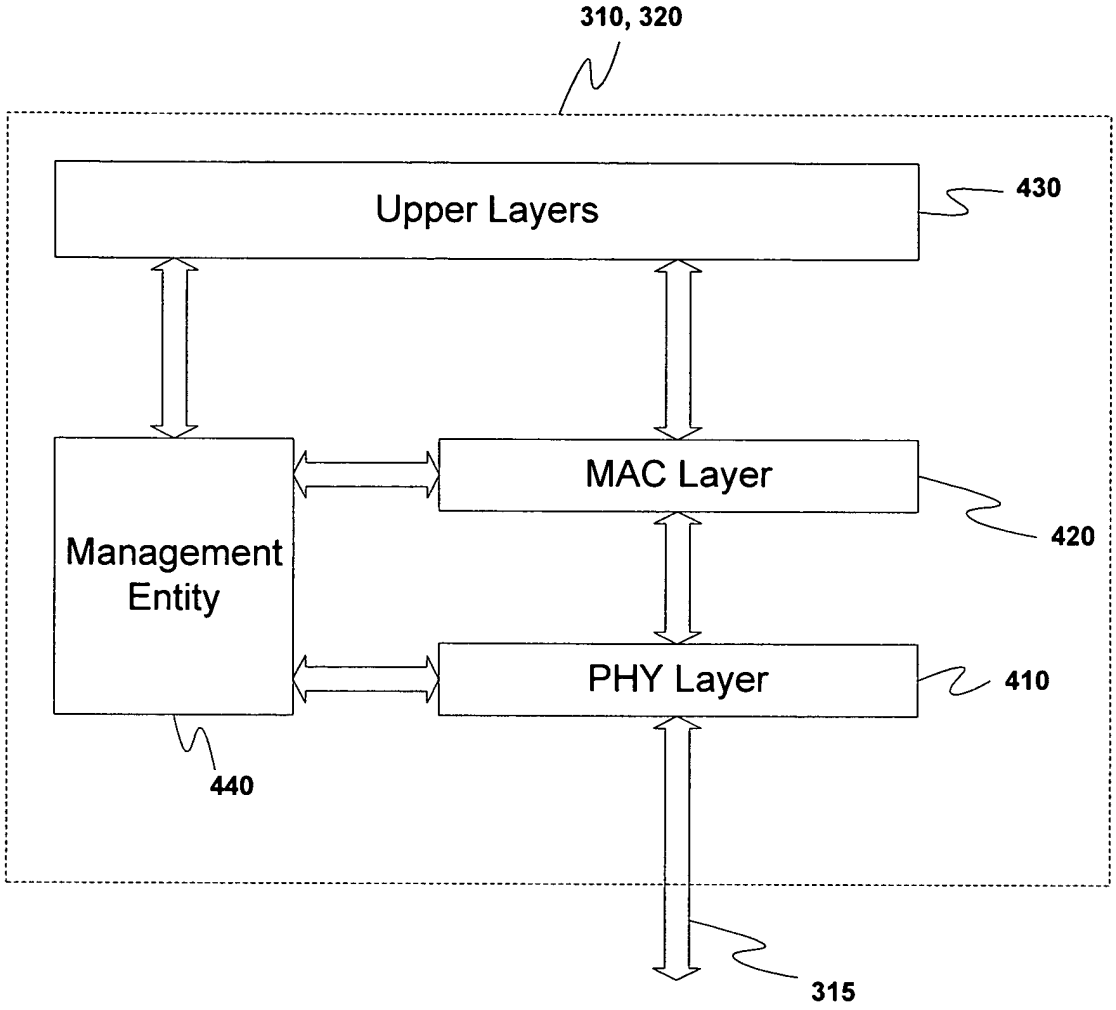
310, 320
Upper Layers
430
MAC Layer
420
Management Entity
PHY Layer
410
440
315

Fig. 4

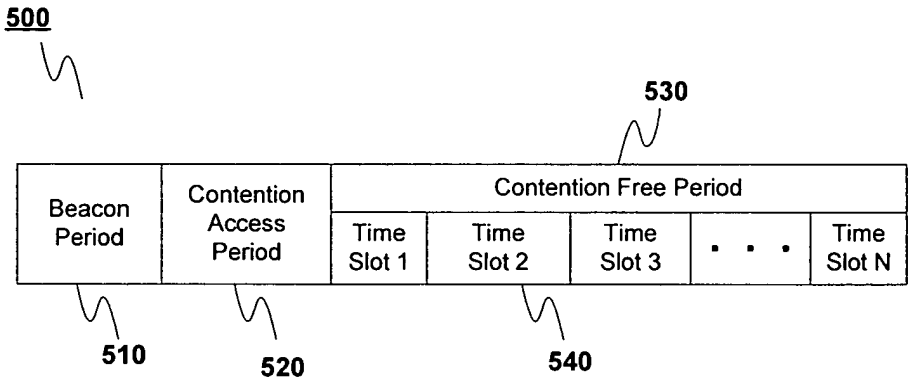
500
530
Beacon Period
Contention Access Period
Contention Free Period
Time Slot 1
Time Slot 2
Time Slot 3
. . .
Time Slot N
510
520
540

Fig. 5

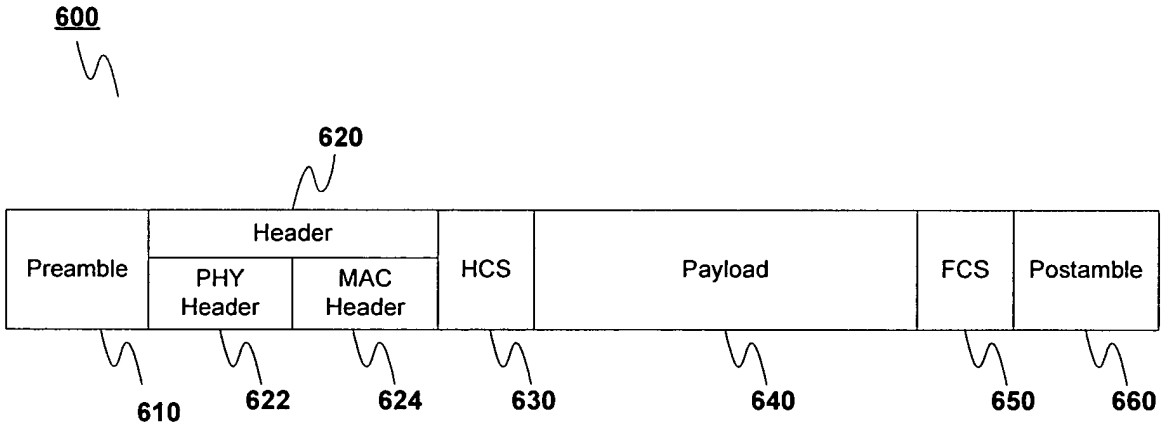
600
620
Preamble
Header
PHY Header
MAC Header
HCS
Payload
FCS
Postamble
610
622
624
630
640
650
660

Fig. 6

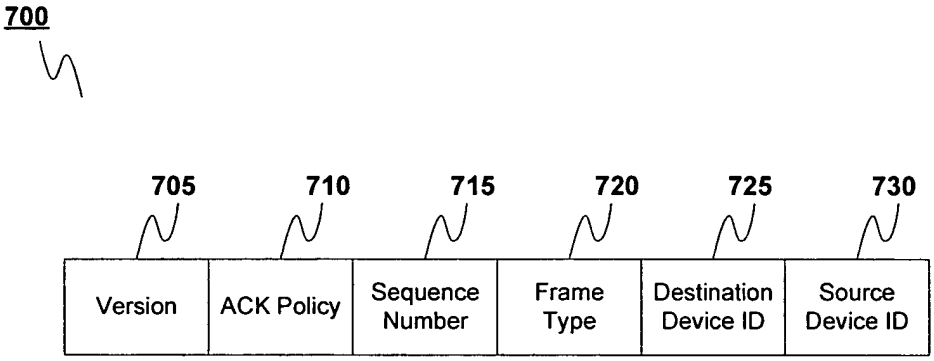
700
705
710
715
720
725
730
Version
ACK Policy
Sequence Number
Frame Type
Destination Device ID
Source Device ID

Fig. 7A

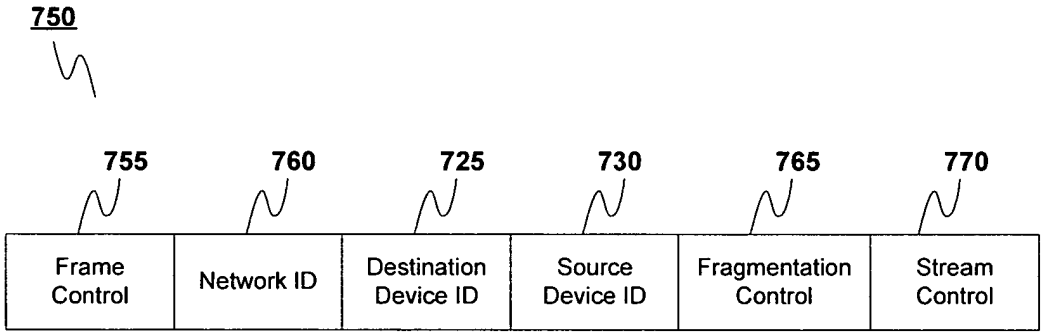
750
755
760
725
730
765
770
Frame Control
Network ID
Destination Device ID
Source Device ID
Fragmentation Control
Stream Control

Fig. 7B

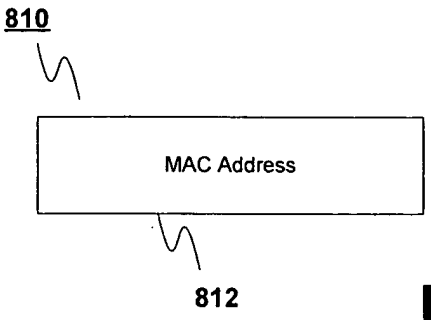

Fig. 8A

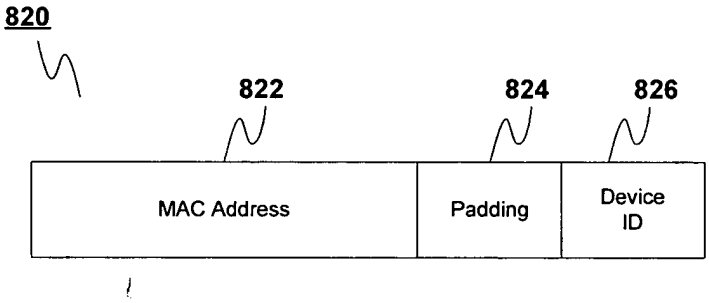

Fig. 8B

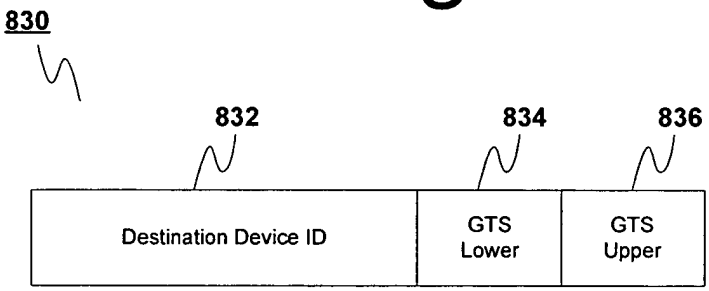

Fig. 8C

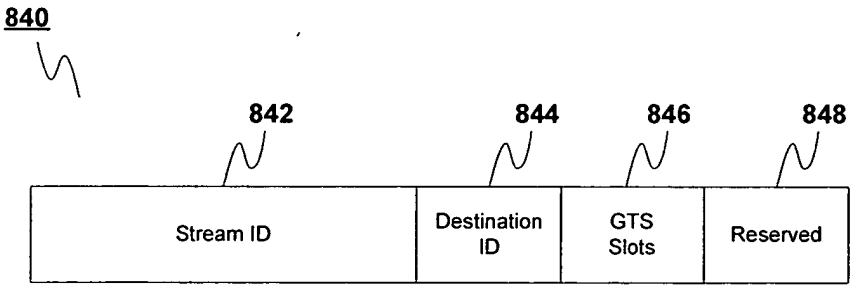

Fig. 8D

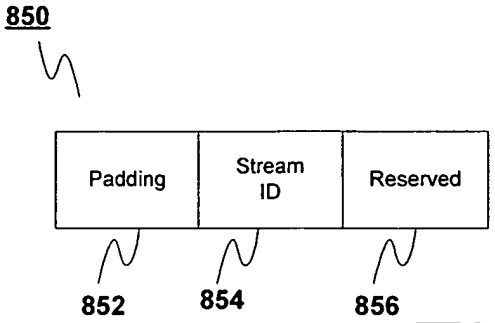

Fig. 8E

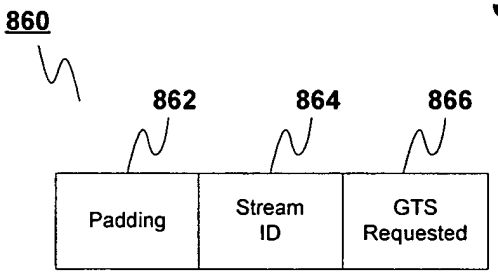

Fig. 8F

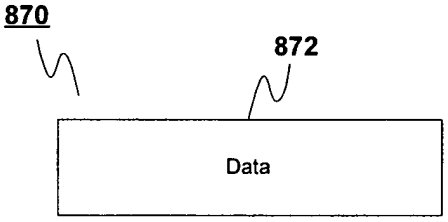

Fig. 8G

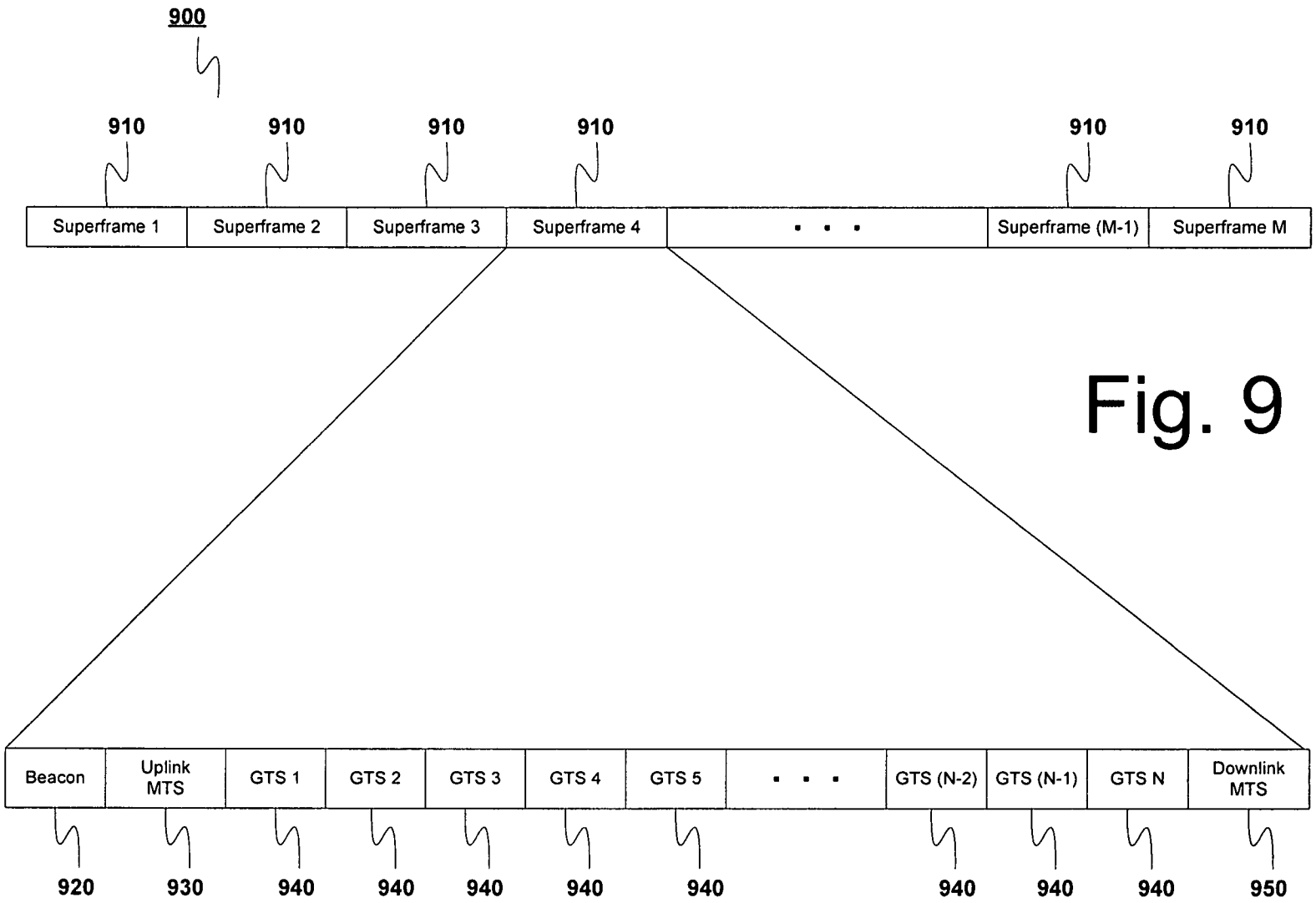
900
910
910
910
910
910
910
Superframe 1
Superframe 2
Superframe 3
Superframe 4
Superframe (M-1)
Superframe M
Beacon
Uplink MTS
GTS 1
GTS 2
GTS 3
GTS 4
GTS 5
GTS (N-2)
GTS (N-1)
GTS N
Downlink MTS
920
930
940
940
940
940
940
940
940
940
950

Fig. 9

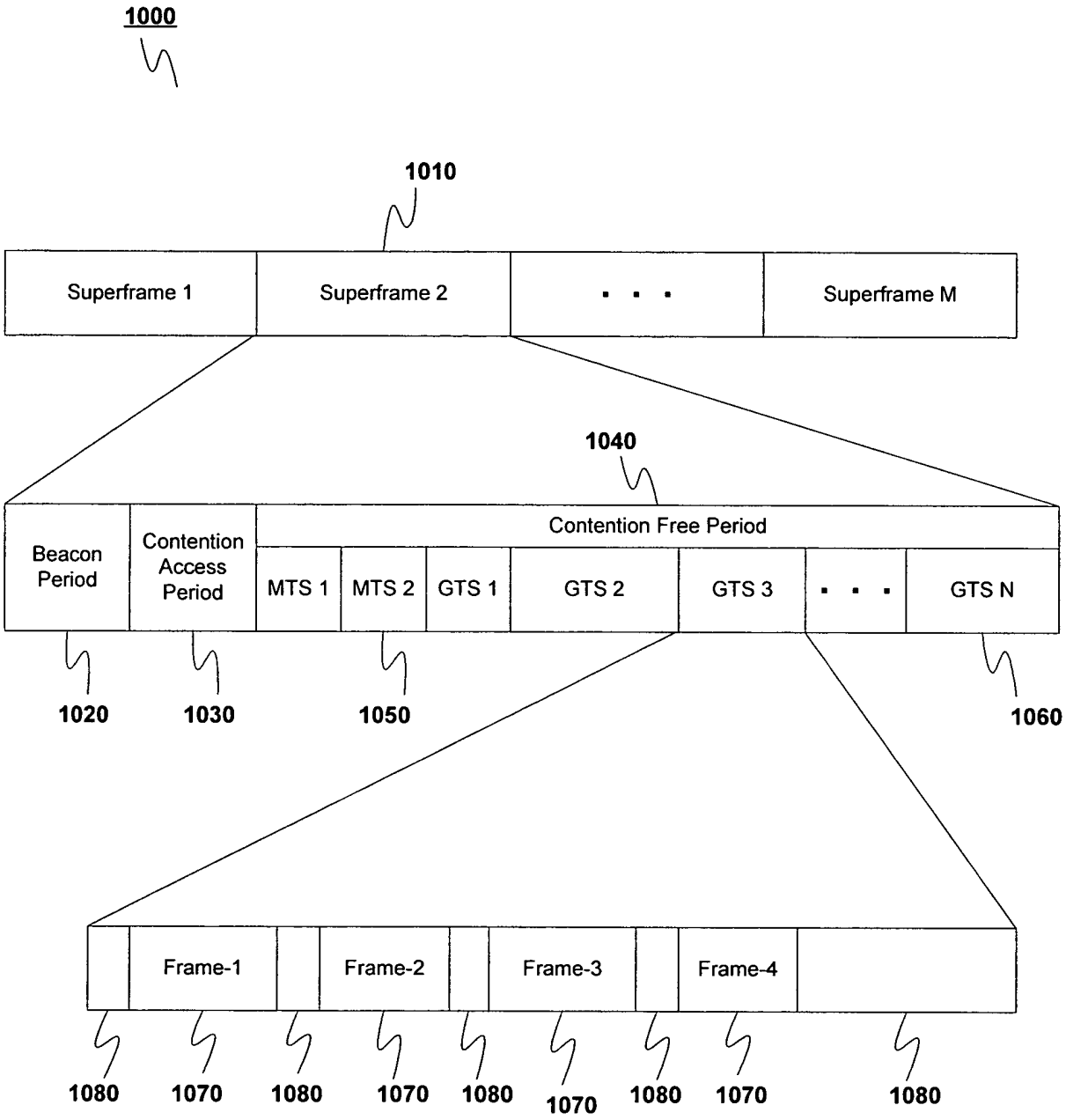
1000
1010
Superframe 1
Superframe 2
Superframe M
1040
Beacon Period
Contention Access Period
Contention Free Period
MTS 1
MTS 2
GTS 1
GTS 2
GTS 3
GTS N
1020
1030
1050
1060
Frame-1
Frame-2
Frame-3
Frame-4
1080
1070
1080
1070
1080
1070
1080
1070
1080

Fig. 10

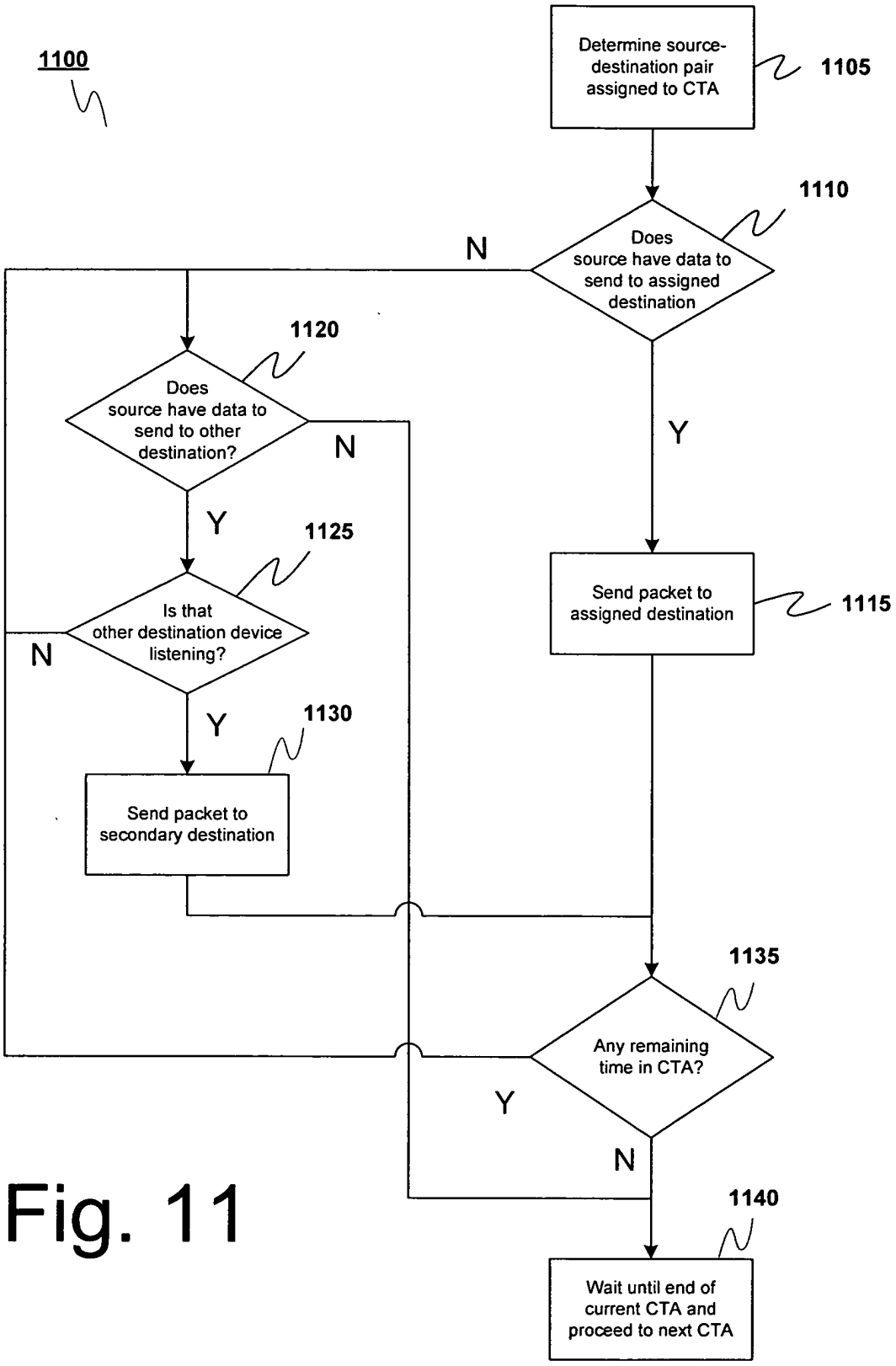
1100
Determine source-destination pair assigned to CTA
1105
1110
Does source have data to send to assigned destination
N
Y
1120
Does source have data to send to other destination?
N
Y
1125
Is that other destination device listening?
N
Y
1130
Send packet to secondary destination
Send packet to assigned destination
1115
1135
Any remaining time in CTA?
Y
N
1140
Wait until end of current CTA and proceed to next CTA

Fig. 11